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Oxidative stress is a potential component of the final common pathway leading to apoptosis following many diverse stim Precursor human manganese-dependent superoxide dismutase (hMn-SOD) was expressed using the baculovirus system Stressed mammalian cells up-regulate heme oxygenase 1 (Hmox1; EC 1.14.99.3), which catabolizes heme to biliverdin, ca Induction of adaptive response by conditioning doses of paraquat (PQ) and hydrogen peroxide (H2O2) in embryonic shoo Several lines of evidence suggest that free radical mediated injury and oxidative stress may lead to muscle necrosis in the Paraquat is a pneumotoxin that causes lung injury by enhancing oxidative stress; however, the cellular responses to thes The major physiological role of glucose-6-phosphate dehydrogenase (G6PD) is to provide NADPH, which is required for r Because lung cells are inevitably exposed to chemicals, drugs and mineral particles, they are appropriate target cells for i The inhibition of glutathione (GSH) synthesis by L-buthionine-SR-sulfoximine (BSO) causes aggravation of hepatotoxicity The effects of L-carnitine, a mitochondrial carrier of fatty acids, on paraquat (PQ) cytotoxicity in freshly isolated rat hepat The differentiation of chloroplasts into chromoplasts involves a series of biochemical changes that culminate with the int The HIV-1 transcriptional regulatory protein Tat is a pleiotropic factor that represses expression of the human Mn-superd The mitochondrion imports and processes the vast majority of the proteins that constitute its structural elements and ma Animal experiments allow the study of oxidative DNA damage in target organs and the elucidation of dose-response rela Infection of many cultured cell types with Sindbis virus (SV), an alphavirus, triggers apoptosis through a commonly utilize OBJECTIVE: To examine whether or not estrogens induced the expression of protein thiol/disulfide oxidoreductases such Methylviologen compounds are normally used in agronomy as herbicides. They cause an overproduction of reactive oxyg Recent results have shown that apoptosis is an important feature of the normal and injured lung epithelium, but little co We designed a new eukaryotic expression vector for secretable superoxide dismutase (SOD), which expresses human SO To clarify the molecular mechanisms of nitric oxide (NO) signalling, we examined the NO-responsive proteins in cultured

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Animal cells generate hydrogen peroxide as a byproduct of energy metabolism. In the presence of reduced metals H(2)O BACKGROUND: Bax is a member of the Bcl-2 family and induces apoptosis of mammalian cells. We have shown that a tra Yeast cells exposed to adverse conditions employ a number of defense mechanisms in order to respond effectively to the Mutations in the dystrophin gene that lead to the expression of truncated forms of the dystrophin protein cause muscula Evidence from a number of studies suggests that the mechanism by which tumor necrosis factor (TNF) kills transformed ϵ Genomic instability has been associated with cancer development. Oxidative DNA damage seems to contribute to geneti Thromboxane A(2) (TxA(2)) preferentially constricts the renal afferent arteriole. Nitric oxide (NO) modulates vasoconstric Although Rhodococcus spp. strains are able to degrade methoxyphenols by enzymatic means, the contact with veratric ${\sf a}$ To clarify the mechanism of cephalosporin nephrotoxicity, the effects of cephaloridine (CLD), a nephrotoxic cephalospori Loss of function of the tumor suppressor protein p53 represents a very frequent event in human carcinogenesis, but the A powerful artificial anti-apoptotic factor will be useful for medical applications of the future therapies for many diseases The protective effects of green tea polyphenols on paraquat-induced genotoxicity in cultured cells were studied. (-)-Epig It has previously been shown that hyperoxia induces nonapoptotic cell death in cultured lung epithelial cells, whereas hy N-Acetylcysteine (NAC) is a drug bearing multiple preventive properties that can inhibit genotoxicity and carcinogenicity. Intracellular production of active oxygen in the green alga Haematococcus pluvialis was studied by measuring the capacit Oxidized and cross-linked proteins tend to accumulate in aging cells. Declining activity of proteolytic enzymes, particular Mouse astrocytes deficient in the mitochondrial form of superoxide dismutase do not grow in culture under 20% atmosp The mitochondrion depends upon the import of cytosolically synthesized preproteins for most of the proteins that compi The effect of hypoxia (80 pHg) and simultaneously applied paraquat (1,1'-dimethyl-4,4-bipyridynum dichloride) was inve We have investigated the effect of free radicals on the electrical gap junctions between horizontal cells in the carp retina Paraquat (PQ) is a well-known pneumotoxicant that exerts its toxic effect by elevating intracellular levels of superoxide. Recent findings in our laboratory suggested that in citrus cells the salt induction of phospholipid hydroperoxide glutathio

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